

On motion, it was ordered that the Wisconsin Historical Society be placed upon the list of Corresponding Societies.

The Minutes of the Board of Officers and Council at their late meeting were read.

Judge Kane asked to be excused from longer service as a member of the Committee on the Hall: when, on motion, his request was granted, and Mr. Fraley was appointed in his place.

On motion of Judge Kane, it was resolved that, in the opinion of the Society, the Committee on the Hall are authorized to make leases of such portions of the Society's premises as are not occupied by the Society, at their discretion.

On motion of Prof. Frazer, a committee was appointed to observe the expected Solar Eclipse, on the 26th inst.—And the following named gentlemen were placed on the committee: Prof. Frazer, Prof. Kendall, Mr. Longstreth, Mr. Justice, Mr. T. Wagner, Prof. S. Alexander, of Princeton; Prof. A. D. Bache, Dr. B. A. Gould, jr., Prof. Kirkwood, Prof. O. M. Mitchell.

It was then, on motion of Judge Kane, resolved that the Chairman of the above named Committee be authorized to add to the number of its members, and that a majority of the resident members shall be a quorum of the Committee.

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*Stated Meeting, June 16.*

Present, nine members.

Dr. FRANKLIN BACHE, President, in the Chair.

Letters were read:—

From Lord Mahon, dated Grosvenor Place, May 24, 1854, acknowledging the receipt of notice of his election as a member of this Society:—

From the Royal Saxon Society of Sciences, dated Leipsic, Feb. 27 and March 4, 1854; from Dr. G. A. Jahn, dated Leipsic April 8, 1854; from the Imperial Academy of Sciences at Vienna, dated January 18 and 28, 1854; from the Prince Ja-

blonowski Society, dated Leipsic, Jan. 13, 1854; from the Royal Bavarian Society of Sciences, dated Munich, March 12, 1854; from the Royal Geological Society of Cornwall, dated Penzance, April 5, 1854; from John H. B. Latrobe, dated Baltimore, June 8, 1854; severally accompanying donations for the library: and—

From the Wisconsin Historical Society, dated Madison, Wisc. June 9, 1854, in relation to an exchange of publications with the Society.

The following donations were announced:—

FOR THE LIBRARY.

Abhandlungen der Philologisch—Historischen Classe der Königlich Sächsischen Gesellschaft der Wissenschaften. Band I. Leipzig, 1850. 4to.—*From the Royal Saxon Society of Sciences.*

Berichte über die Verhandlungen der Phil. Hist. Classe der Königlich Sächsischen Gesellschaft: 1846–1853. 8vo.—*From the same.*

Berichte über die Verhandlungen der Math. Physische Classe, 1853. II. 8vo.—*From the same.*

Zur Geschichte der Englischen Volkswirtschaftslehre, von W. Roscher, mit Nachtrage.

Eberhard Windeck, von Johann Gustav Droysen.

Zwei Verzeichnisse Kaiser Karls V. Lande, seine und seiner grossen einkünfte und anderes betreffend von J. G. Droysen.

Volusii Maeciani distributio partium: von Theodor Mommsen.

Polemii Silvii Laterculus, herausgegeben von Theo. Mommsen.

Entwicklung der Negativen und Ungraden Potenzen, &c. P. A. Hansen.

Ueber einige allgemeine Reihenentwickelungen und deren Anwendung auf die Elliptischen Funktionen: O. Schömilch.

Ueber die Bestimmung der Massen und der Trägheitsmomente symmetrischer rotationskörper von ungleichförmiger dichtigkeit. O. Schömilch.—*From the same.*

Astronomische Untersuchungen über die Wichtigeren Finsternisse welche von der Schriftstellern des Classischen Alterthums erwähnt werden. Preisschrift von Dr. Julius Zech. Leipzig, 1853. 8vo.—*From the Prince Jablonowski Society, at Leipsic.*

Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Math. Nat. Classe, Band XI. 3, 4 Heft, Oct. Nov. 1853.—Phil.

- Hist. Classe, Band XI. 3 Heft. Oct. 1853. Wien. 8vo.—*From the Imperial Academy of Sciences, Vienna.*
- Bulletin der Königlichen Akademie der Wissenschaften. Nos. 1–52. 1853. München. 4to.—*From the Royal Bavarian Academy of Sciences.*
- Gelehrte Anzeigen: herausgegeben von Mitgliedern der Königl. Bayer. Akad. der Wissenschaften. Band 36, 37. München, 1853. 4to.—*From the same.*
- Afrika vor den Entdeckungen der Portugiesen: von Dr. Fr. Kunstmann.
- Ueber die Bewegung der Bevölkerung im Königreiche Bayern: von Dr. Fr. P. W. von Hermann.
- Rede zur Vorfeier des hohen Geburtsfestes Sr. Maj. des Königes Maximilian II. von Bayern, Nov. 26, 1853: von Fr. von Thiersch, &c.
- Wegweiser für die Besucher des K. Botanischen Gartens in München, &c. von Dr. C. Fr. Ph. v. Martius.—*From the same.*
- Die Astronomie und die Astronomen seit dem Jahre 1845: Im Lichte und Schatten unserer Zeit betrachtet von einem Astronomen. Leipzig, 1854. 8vo.—*From Dr. G. A. Jahn.*
- Graphische Darstellung der Magnetischen Deklination zu Marburg. (Lithograph.) 1848–1852. Folio.—*From Dr. Gerling.*
- Monthly Notices of the Royal Astronomical Society. Vol. XIV. No. 6. April 12, 1854. London. 8vo.—*From the Society.*
- Thirty-eighth and Thirty-ninth Annual Reports of the Council and Curators of the Royal Geological Society of Cornwall, with Papers and Notices read to the Society. Penzance, 1851–2. 8vo.—*From the Society.*
- Astronomical Observations made under the direction of M. F. Maury, Lieut. U. S. Navy, during the year 1847, at the National Observatory, Washington. Vol. III. Published by authority of the Secretary of the Navy. Washington, 1853. 8vo.—*From the Observatory.*
- Annual Report of the Trustees of the State Library of the State of New York, transmitted to the Legislature, March 10, 1854. Albany. 8vo.—*From the Trustees.*
- Journal of the Franklin Institute. Third Series. Vol. XXVII. No. 6. June, 1854. Philadelphia. 8vo.—*From the Institute.*
- The African Repository. Vol. XXX. Nos. 5, 6. May, June, 1854. Washington. 8vo.—*From the Am. Colonization Society.*
- Proceedings of the Third Convention of American Instructors of the

Deaf and Dumb, held at the Institution for the Deaf and Dumb, Columbus, Ohio, August 10, 11, 12, 1853. Columbus. 8vo.—*From the Rev. W. W. Turner.*

Report in relation to the Construction of a Light House on the New South Shoal off Nantucket. By Major Hartman Bache, U. S. Top. Engineers. Washington, April, 1853. 8vo.—*From the Author.*

African Colonization. By John H. B. Latrobe. Baltimore, 1851-3. 8vo.—*From the Author.*

The Astronomical Journal. Nos. 70, 71. (Vol. III. Nos. 22, 23.) Cambridge, May, 1854. 4to.—*From Dr. B. A. Gould, jr. Editor.*

The Medical News and Library. Vol. XII. No. 138. June, 1854. Philadelphia. 8vo.—*From Blanchard & Lea.*

The Plough, the Loom and the Anvil. Vol. VI. No. 12. June, 1854. New York. 8vo.—*From the Editor.*

Prof. Frazer, from the Committee appointed at last meeting to observe the Solar Eclipse of the 26th ultimo, made a report embodying the results of observations made at various places in and near Philadelphia, as follows:

The committee appointed to observe the eclipse of the sun on 26th May, 1854, report that observations were made by Mr. Fisher Longstreth, at the observatory attached to the Friends' Central School in Cherry street; by Mr. T. Wagner and Mr. Riggs, at the observatory of the former gentleman; by Mr. Justice and Mr. Trego, at the State House; and by Profs. Kendall and Frazer at the Franklin Institute.

Mr. Longstreth's observations were made with a  $3\frac{1}{2}$  feet telescope, and red screen; owing to the heat, the object glass was reduced from 3 inches to 1 inch aperture.

Mr. Wagner used a refracting telescope by Jones (London), 5 feet focal length; object glass  $3\frac{7}{8}$  inches, by Tully, reduced by a cap about one-half; power, 100; screen, dark red.

Mr. Riggs used a telescope by Utzschneider & Fraunhofer, with a red screen; power about 30.

Mr. Justice observed with the Dollond telescope belonging to the Society; power about 85; screen glass dark smoky green, giving an apparently colourless image of the sun; and a small glass by Merz, power about 30.

Mr. Trego used a glass by Blunt, power about 24; screen glass smoke colour.

Prof. Kendall (the instruments of the High School being dismantled) used the Plösel telescope belonging to the Society.

Prof. Frazer used the Dollond telescope belonging to the University;  $3\frac{3}{4}$  inches object glass; 5 feet focus; screen glasses of various shades of red; generally a very dark red preferred.

The following table gives the observed times of contact by the various observers.

	Longstreth.	Wagner.	Riggs.	Kendall.
First contact,	4 10 53	4 10 50.5	4 10 54.5	
Last contact,	6 33 33	6 33 48	6 33 47.5	6 33 58.8
	Frazer.	Paine's Calculation.	Beans. Norrilstown.	Jackson. Darby.
First contact,		4 10 31.8	4 10 02	4 10 07
Last contact,	6 33 59.3	6 34 06.9	6 33 11	6 33 11

The observatory of Mr. Longstreth at the Friends' School House in Cherry street, is in lat.  $39^{\circ} 57' 16''$ , long.  $5h. 00m. 39s. W.$ , being 400 feet east of the State House, and about 1800 feet north of it. Mr. Wagner's observatory is in the same latitude as the State House,  $39^{\circ} 56' 59''$ , and in longitude about 0.77 sec. west of the old High School observatory: thus making  $7m. 32.86$  east of Washington.

Mr. Bean's observatory at Norristown is in lat.  $40^{\circ} 07' N.$  and long.  $7'.75$  east.

Mr. Jackson's observatory at the Sharon Female Seminary near Darby, is in latitude  $39^{\circ} 54' 14'' N.$ , longitude  $5h. 1m. 6s.$  west from Greenwich.

The observations were made with a nine feet equatorial, by Merz and Mahler, of Munich; power used, 65.

The meteorological phenomena are submitted as recorded by the different observers; they are not comparable, for want of determination of the error of the instruments.

The results of Prof. Frazer alone are reduced—the height of the barometer to that of the standard of the Smithsonian Institution (Ernst 5); the thermometers to that of a standard thermometer made and compared at the Kew observatory, England.

#### *Observations by Mr. Longstreth.*

Height of barometer at  $2h. 20m.$  = 30.01 in. therm. att.  $76^{\circ}$  Fah.

„ „  $7h.$  = 30.04 „ „  $73^{\circ}$  „

Mason's hygrometer exposed to the sun.

	Dry Bulb.	Wet Bulb.	Thermometer in Shade.	
4h. 25m.	86° Fah.	63.5° Fah.	2h. 20m.	78° Fah.
4h. 45m.	83°	63°	5h. 30m.	70.5°
5h. 15m.	77°	61°	6h. 30m.	72°
5h. 30m.	75°	59.5°	7h.	69°
5h. 50m.	78°	62°		
6h. 30m.	80°	62.5°		

*Observations by Messrs. Justice and Trego.*

Thermometer in Sun.					
4h. 30m.	Therm.	84.5° Fah.	5h. 40m.	Therm.	74° Fah.
4h. 40m.		82°	5h. 50m.		78°
4h. 50m.		83°	6h.		78.5°
5h.		80°	6h. 15m.		80°
5h. 10m.		76.5°	6h. 30m.		79°
5h. 20m.		73°			

*Observations by Professors Kendall and Frazer.*

Barometer, an Aneroid, compared before and afterwards with standard barometer (Brunner, 122). Observations reduced to the Smithsonian standard barometer (Ernst. 5).

Thermometer in shade—a fine chemical thermometer made in Paris.

Thermometer in sun—a flat-bulb thermometer made at Berlin.

The observations are reduced by direct observation to the Kew standard thermometer, No. 104, belonging to the University.

h.	m.	Barometer.	Therm. in Shade.	Therm. in Sun.
2	48	29.91 *	76.2	83.5
4	13	29.91	77	82.1
4	30	29.91	76.1	79.4
4	42	29.91	76.1	79.4
4	50	29.91	76.1	78.9
4	53	29.91	75.65	78.4
5	02	29.91	75.2	76.3
5	14	29.9	73.7	73
5	24	29.91	73.7	73
5	33	29.91	71.9	71.75†
5	44	29.9	71	71.75
5	58	29.9	71.3	73
6	08	29.9	71.3	72.25
6	34	29.91	70.75	72

\* The attached thermometer scarcely varying perceptibly.

† This was a minimum, the thermometer being watched continuously until 5.44, when it again began to rise.

The physical phenomena noted were generally of a negative character. The sun was entirely free from spots, and the atmosphere, although not perfectly clear, was cloudless, and allowed good definition of the limbs of the sun and moon. There was a strong wind from the N. W. blowing in gusts, but not enough to interfere materially with the observations. Towards the close of the eclipse, the nearness of the sun to the horizon, and the irregular refraction of the atmosphere, caused considerable undulation in the limbs, but not enough to interfere with close determination of egress. No distortion of the cusps of the sun was seen by any of the observers, though such phenomena were carefully looked for. Profs. Frazer and Kendall saw very distinctly the bright line of light bordering the limb of the moon, during the whole of the eclipse, and satisfied themselves by changing the screen glasses and otherwise varying the observations, that it was real, and not a mere effect of contrast. Prof. Frazer could get no evidence of polarization in the light from the cusps, and the border above spoken of was too narrow to allow the effect to be separated from that of the illuminated disc of the sun.

Mr. Justice formed the spectrum by a prism, and found the breadth of the violet part to be greatly increased during the progress of the eclipse, diminishing again as the eclipse passed off. The irregular prominences on the moon's limb were seen by most or all of the observers.

Mr. Beans, at Norristown, observed the position of the magnetic needle at intervals of half an hour, from 2 till 6½ o'clock, P. M., but saw no marked disturbance thereof during that time; at most not exceeding 2 or 3 minutes of a degree, which happened at 2½ and 3, P. M.

The Treasurer made a verbal report in relation to the leasing of the lower rooms of the Society's Hall.

On motion of Prof. Frazer, it was ordered that the Wisconsin Historical Society be furnished with a copy of the Transactions of this Society from the commencement of the New Series.